of-way needs. Functional/Conceptual Design is the basic design of any proposed improvements, primarily along existing sections of corridor. Designs may include:

- Short term improvements (such as recommended access management strategies)
- Long-term improvements (including interchanges)
- Additional right-of-way requirements

All designs should meet NCDOT Roadway Design Standards.

Outcome: Functional designs of proposed improvements.

Land Use Analysis

Purpose: To examine existing and future land use along the corridor, specifically the relationship between transportation goals and development objectives for the area. Specific recommendations or guidelines may be developed to ensure compatibility between the intended function of the transportation facility and the existing and future land use of adjacent parcels. This includes the relationship of land uses around interchanges.

Outcome: Documentation of the existing and future land use and/or guidelines for future development.

Systems-level Environmental Analysis

Purpose: To identify major natural and human environmental features in the corridor, along with the potential impacts of any proposed improvements. The primary tool for this analysis is a Geographic Information System (GIS) and available data which is obtained from the NCDOT GIS Unit and/or North Carolina Center for Geographic Information and Analysis (NCCGIA). This type of analysis can be performed on a broad scale (primarily identification of major features) or can be location specific.

Outcome: Documentation and/or mapping of major environmental features and potential impacts.

Indirect and Cumulative Impacts Analysis

Purpose: To examine the effects which are caused by proposed improvements or actions that are later in time or farther removed in distance from the project, but are still reasonably foreseeable. These effects can be impacts on the environment, which results from the incremental impact of the improvement or action when added to other past, present, and reasonably foreseeable future actions.

Outcome: Documentation of potential indirect and cumulative impacts (ICI).

NEPA Decision/Record of Decision

Purpose: To achieve a federally approved Record of Decision (ROD) for projects along the corridor, which can help streamline future environmental planning studies. This element is a specific type of corridor study, which incorporates the majority of the previous elements discussed, and is referred to as a Tiered EIS. In a Tiered EIS, examination of a full range of alternatives along the entire corridor occurs, ranging up to several hundred miles in length. The Tiered EIS process is specifically authorized under the federal regulations governing environmental impact statements. This process involves two stages: (1) Tier 1 (systems-level), which analyzes the need for the project and a broad range of potential corridors;